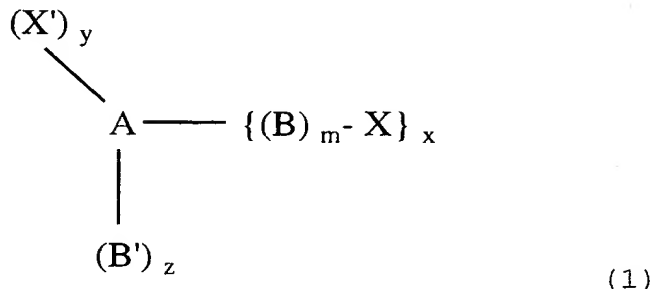


What is claimed is:

1. A composition comprising (i) a crystallizable thermoplastic polymer and (ii) one or more nucleators of the formula

5



wherein:

x is an integer from two to seven;

y is an integer from zero to four;

10 z is an integer from zero to four;

the sum $x + y + z$ equals an integer from three to seven;

m is an integer from one to three;

and wherein A is a center that is covalently bonded with
 15 moieties B, B' or X', or combinations thereof; wherein
 said moieties B and B' comprise at least one unit capable
 of forming one or more intermolecular hydrogen bonds;
 wherein moieties X and X' are compatible with said
 crystallizable thermoplastic polymer; and wherein X is
 20 covalently bonded to B.

2. A composition according to claim 1 wherein
 said center A is selected from the group consisting of
 carbon, nitrogen, phosphorus, boron and silicon, which may

be substituted with one or more aromatic, cycloaliphatic, aliphatic, alkene, alkyne, diene, ether, thioether or ketone links, and combinations thereof, connected to them; unsubstituted and substituted, single and fused 4, 5, 6 or 5 7 membered aromatic and cycloaliphatic carbon rings, which rings may include one or more heteroatoms such as nitrogen, sulfur and oxygen, and combinations thereof, which may be substituted with one or more aromatic, cycloaliphatic, aliphatic, alkene, alkyne, diene, ether, 10 thioether or ketone links, and combinations thereof.

Sub A 1
15 3. A composition according to claims 1 or 2 wherein said moiety B, which may be the same or different at each occurrence, comprises one or more units selected from the group consisting of esters, thioester, ethers, thioethers, ketones, secondary and tertiary amines, amides, imides, imines, azo, azoxy, ureas, urethanes, thiourethanes and sulfonamides.

20 4. A composition according to any of claims 1 to 3 wherein said moiety B', which may be the same or different at each occurrence, are selected from the group of moieties that comprises one or more carboxylic acid and sulfonic acid, alcohol, phenol, thiol, amine, acetamide, 25 cyano and hydrazine groups.

5. A composition according to any of claims 1 to 4 wherein said moieties X and X', which may or may not be

chiral, and are the same or different at each occurrence are selected from the group consisting of: H, linear and branched alkyl, alkenyl, alkoxy, alkanoyl, alkylthio, alkylthioalkyl, each having from 1 to 20 carbon atoms; 5 linear and branched alkylaryl, arylalkyl, alkylsulfinyl, alkoxyalkyl, alkylsulfonyl, alkoxycarbonyl, carboxylic acid, where the alkyl or alkoxy each has from 1 to 20 carbon atoms; alkyl having from 1 to 20 carbon atoms substituted with one or more sulfonic acid, carboxylic acid, halogen, nitro, cyano, diazo, or epoxy moieties; one 10 or more substituted and unsubstituted single and fused 3, 4, 5, 6 or 7 membered aromatic and alicyclic carbon rings, which rings may include one or more heteroatoms of nitrogen, sulfur, sulfinyl, sulfonyl or oxygen or 15 combinations thereof.

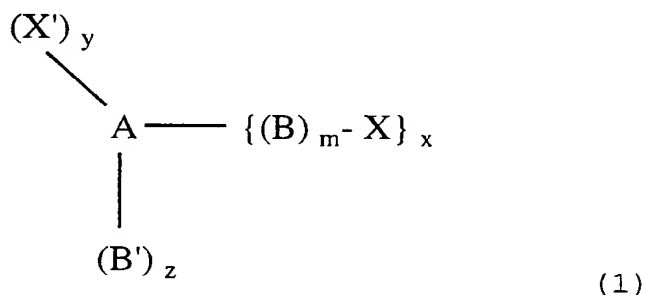
6. A composition according to any of claims 1 to 5, wherein said composition is characterized in that its peak temperature of crystallization is at least 3 ° C 20 higher than the peak temperature of crystallization of said crystallizable thermoplastic polymer.

7. A composition according to any of claims 1 to 6, wherein said composition is characterized in that the 25 size of polymer spherulites in said composition is less than 50 % of the size of spherulites in neat crystallized thermoplastic polymer that is void of said nucleators.

8. A process for enhancing the rate of crystallization of a crystallizable thermoplastic polymer that comprises the addition of an amount between about 0.001 percent by weight and about 20 percent by weight of one or more nucleators as defined in any of claims 1 to 6.

9. Shaped objects comprising the composition according to any of claims 1 to 7 selected from the group consisting of films, fibers, containers, coatings, parts, membranes, rods, tubes, fabrics, and foams.

10. A compound of the general formula



wherein A, B, B', X, X', m, x, y, and z are defined in claim 1; wherein A is substituted or unsubstituted triphenylamine; wherein B comprises an amide unit; and wherein y and z equal zero, under the proviso that the compound 4,4',4''-tris(stearoylamino)triphenylamine is excluded.

11. Use of a compound of formula (1) as defined in any of claims 1 to 5 as a nucleating agent for a crystallizable thermoplastic polymer.

12. A thermoplastic polymer composition comprising:

- 5 a) one or more polyolefins selected from the group consisting of polyethylenes, stereoregular polypropylenes and ethylene-propylene copolymers; and
- b) one or more of the nucleators according to formula (1), wherein:
- 10 i) the center A is a single atom selected from the group consisting of nitrogen and phosphorus; or A is an unsubstituted or substituted, single or fused 5 or 6 membered heterocyclic aromatic or nonaromatic ring, which ring includes carbon and one or more atoms such as nitrogen, sulfur or oxygen, or combinations thereof; and
- 15 ii) moieties B that are the same at each occurrence and comprise amides or ureas; or moieties B that are not the same at each occurrence and comprise at least 2 amides and at least 1 moiety selected from the group consisting of esters and ureas; or moieties B that are not the same at each occurrence and that comprise at least 2 ureas and at
- 20 least 1 moiety selected from the group consisting of esters and amides.
- iii) x is three; y is the integer zero or one; z is the integer zero or one; m is the integer one or two.